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## POTTERY FROM THE ALEUTIAN ISLANDS

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The aboriginal inhabitants of Amaknak Island (Dutch Harbor, Alaska) were the Eskimo-Indians called "Aleut" by the Russians. Before the arrival of white men, they occupied all of the Aleutian Islands and part of the Alaska Peninsula.

The prehistoric Aleut made their living by hunting sea mammals, fishing, and gathering wild plants and shellfish. They lived in underground houses, dressed themselves in garments of fur, skin, or gut, traveled in skin-covered boats, and made tools and weapons of bone, stone, and driftwood. They also wove dried grasses into baskets and mats. The social structure of Aleut society was relatively more elaborate than that of their distant kin, the Eskimo of northern Alaska.

Aleut culture was modified by the arrival of Russian explorers and traders in the middle of the eighteenth century. Subsequent exploitation of the natives by white hunters and traders nearly extinguished the fire of Aleut culture and the Aleut as well. In a little more than fifty years the population decreased from somewhere between 16,000 and 25,000 to fewer than 2,000. However, Aleut culture can be reconstructed from the records of early explorers, hunters, and traders, and the accounts of later missionaries and archaeologists.

According to historical records and the investigations of early archaeologists the Aleut did not make pottery, although they sometimes added clay walls to their stone frying pans.

Recently, however, pottery has been discovered in the Aleut midden sites on Amaknak Island (Dutch Harbor). The discovery was made by Lieutenant A. R. Cahn, U.S.N.R., who salvaged considerable material from sites or parts of sites destroyed in the course of military construction. Lieutenant Cahn presented a large collection of Aleut artifacts (including pottery) to Chicago Natural History Museum. With a few minor exceptions, all of the pottery



came from Midden C. The minor exceptions consist of two sherds from Midden A, one from Midden D, and two from Midden G. In all there were about thirty sherds, some of them representing sizable parts of vessels, from Midden C. Some of these sherds were from 6 to possibly 13 feet beneath the top of the midden.

Stone vessels (fig. 4, *c-f*) which closely resemble those made of pottery were also found in the middens, particularly in Midden C. Much of the pottery is so coarse, thick, and heavily tempered with sand or rock fragments that it can only with difficulty be separated from the stone. Because of this similarity as well as the similarity of vessel forms it is probable that earlier investigators encountered pottery in the Aleutians, but mistook it for stone.

All of the pottery is crude, very thick, and heavy. Probably it was made by modeling the clay into the desired shape. Tempering is granular in character and always exceptionally abundant; otherwise it varies. Some of the pottery seems to be heavily tempered with sand, or possibly a very sandy clay was used. Most of it, however, was tempered abundantly with gritty particles of various sizes. Several fragments of this pottery (representing two different vessels) were sent to Dr. Anna Shepard for examination. She says of them: "They are composed of volcanic material—fresh sharp mineral grains and fragments of a basalt—weakly bound by a red clay. Not only does the nature of the material indicate that they are pottery, but also the characteristics of the surface, for I find finger-like depressions in one area and a smooth flat surface with coarse particles of temper imbedded in it. This latter effect would be produced had the paste been pressed against a smooth flat surface but could not have been obtained had the vessel been worked with a tool, for the material is exceedingly friable and the weak binding of the clay would not hold the particles in place to be evenly worked to the level of the surface. I did not take time for specific petrographic determination of the inclusion, because the question was only whether or not the vessels are pottery."

None of the pottery is decorated. With the exception of a small lamp all of the vessels seem to have been elliptical or oval bowls with flat bottoms and slightly convex sides. The walls range in thickness from 2 to 6 cm. Generally the vessel bottoms are thinner than the sides (1–4 cm.). The following are some selected examples of Aleut pottery in the Museum collection.

One restored vessel (fig. 1), found at a depth of 6½ feet in the C Midden, is tempered with sand. I would guess that there is as



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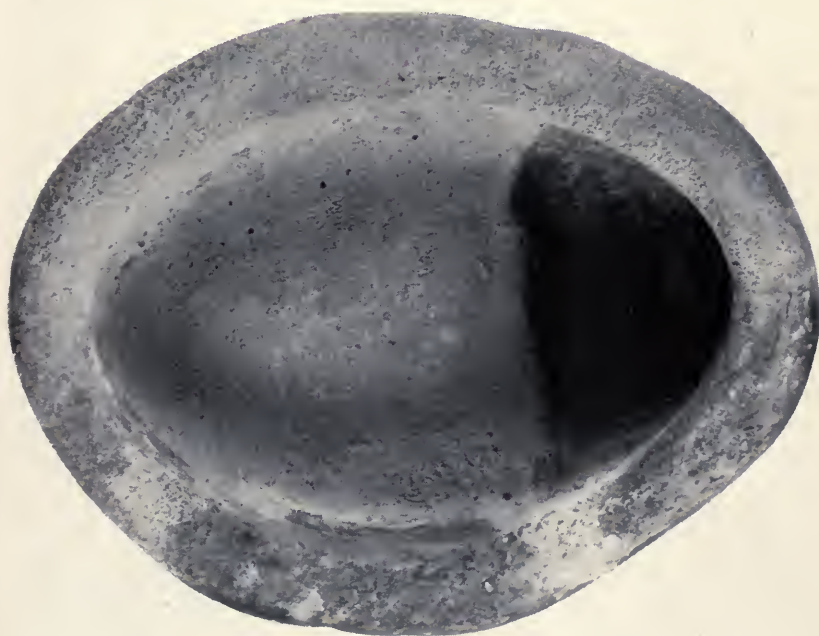


FIG. 1. Pottery vessel which has been mended and restored.

much sand as clay in the paste of this pot. The pottery is buff on the inside and smoke-blackened on the outside. The vessel is elliptical, with a flat bottom, a vertical, slightly convex rim, and a rounded lip. The pot is 33 cm. long, 25 cm. wide, 10 cm. high, and 3 cm. thick.

A large fragment (fig. 2, *a*) from the C Midden probably was part of a rather shallow bowl with thick walls (3 to 3.5 cm.), a slightly outslanting convex rim, and a rounded lip. The paste is abundantly tempered with small angular particles of grit and with sand. Of all the sherds in the collection this one is the most easily recognizable as pottery.

A small black sherd (fig. 2, *c*) from Midden C is abundantly tempered with grit particles ranging in size from grains to small angular pebbles. Criteria of shape are lacking. It is 2.5 to 3.5 cm. thick.

One sherd (fig. 2, *k*) from Midden C is particularly interesting, because it appears to have been fiber-tempered. The tempering was relatively abundant and appears to have been in clusters. Possibly wads of grass would produce the observed conditions of the temper molds. The paste is sandy and brown in color. The vessel might have been elliptical. It had a flat bottom 3 cm. thick, a vertical, slightly convex rim 4 cm. thick and 8.5 cm. high, and a rather flat lip.

The sherd illustrated in figure 2, *d* is also from Midden C. It is tempered with small particles of grit. The color is buff and there are deposits of carbon, mostly on the outside of the sherd. The vessel represented by this sherd was 9 cm. high, and probably elliptical, with a rounded bottom 2 cm. thick, a vertical, slightly convex rim 4.5 cm. thick, and a flattened lip.

A somewhat similar rim sherd, illustrated in figure 2, *e*, is made of very sandy clay with inclusions of gravel of various sizes. The sherd is brown with some smoke-blackening on the exterior. The rim is vertical and straight, with a flattened lip. It is 8 cm. high and 4 cm. thick.

Another sherd (fig. 2, *f*) from Midden C is dark gray, coarse, and heavily tempered with grit particles of various sizes. It is 2 cm. thick. Criteria of shape are lacking. What appears to be the interior surface is heavily encrusted with deposits of carbon.

Also found in Midden C was the sherd illustrated in figure 2, *g*. The color is reddish except where the exterior is smoke-blackened. The paste is composed of clay and small angular stone fragments, with the latter predominant. The vessel of which this sherd was a



*a*



*b*



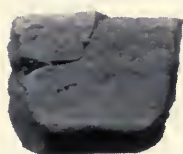
*c*



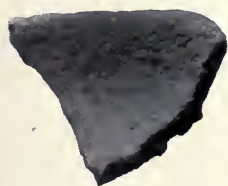
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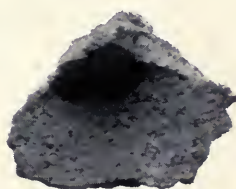
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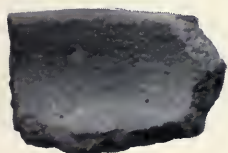
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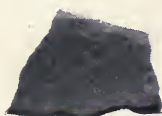
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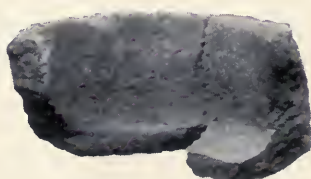
*i*



*j*



*k*



*l*

FIG. 2. Pottery sherds from the Aleutian Islands.



FIG. 3. Pottery sherds from one vessel.



part probably was elliptical or round. It was 9 cm. high, and had a flat bottom 1.5 cm. thick, a vertical, slightly convex rim 2 cm. thick, and a rounded lip.

In figure 2, *h* there is illustrated a basilar sherd with a small portion of the adjoining side wall or rim. The paste is crumbly, abundantly tempered with small or medium-sized grit particles some of which are angular and others rounded. Colors are buff and gray.

A single pottery fragment (fig. 2, *i*) from the D Midden suggests a very shallow bowl with a circular outline, a curved rim, and a flattened lip. The vessel wall is of rather uniform thickness, 3.3 cm., although it may be slightly thinner toward the bottom. The paste is hard, well consolidated, and burned throughout. It consists of abundant angular rock particles cemented together with a little clay. Striations on the surfaces of the sherd suggest some kind of "tooling" while the pottery was still plastic. This sherd is truly synthetic stone and could be described paradoxically as stone tempered with clay.

Two somewhat similar sherds (fig. 2, *j* and *b*) found in the G Midden are reddish in color except where they are smoke-blackened on the exterior. They are heavily tempered with grit. The vessel probably was elliptical in shape. It was 7 cm. high, with a flat bottom 2 cm. thick, a vertical, slightly convex rim from 1.5 to 2.5 cm. thick, and a flattened lip.

A sherd (fig. 2, *l*) from Midden A is tempered with sand. The vessel of which it was a part must have been elliptical and rather small, with a flattened lip. It was 8.5 cm. high, with a vertical, slightly convex rim about 2.7 cm. thick and a bottom 1.3 cm. thick. This sherd is buff in color and is blackened by smoke and carbon deposits on the exterior.

The sherds illustrated in figure 3 are all from the same vessel, found in Midden C. The vessel suggested by the sherds is a large oval bowl with a vertical, slightly convex rim, a rounded bottom, and a flattened lip. This bowl had an estimated maximum diameter of about 60 cm. and a height of about 15 cm. The rim is 5 cm. thick and the bottom 2 cm. thick.

These sherds are abundantly tempered with particles of grit and sand. The color is buff and there are areas of smoke-blackening and deposits of carbon, most of which are on the exterior of the vessel. Some parts of the vessel exterior seem to be slightly corrugated in a fashion which superficially resembles grooved-paddle stamping but

probably was produced by some tooling technique after the paste had hardened.

An unusually large vessel is suggested by a buff-colored sherd from Midden C (fig. 4, *a*). I would guess that there is more grit than clay in the paste. The vessel indicated by these sherds was 18 cm. high, with a flat bottom 3.5 cm. thick, a vertical, slightly convex rim 6 cm. thick, and a flattened lip. The curvature of the sherds suggests that the vessel was round or oval, with a probable diameter of about 75 cm.

A somewhat similar vessel is indicated by three sherds, one of which is illustrated in figure 4, *b*. The sherds are dark gray, very coarse, and heavily tempered with grit. The vessel of which they were a part was probably elliptical with a flat bottom, a vertical, slightly convex rim 3 cm. thick, and a rounded lip. The vessel was 12 cm. high. The sherds were found twelve feet beneath the top of Midden C.

About one-half of a small lamp was found in Midden C. The color is gray or smoke-black. The paste is coarse and heavily tempered with very small rounded pebbles.

The pottery type suggested by the individual examples that have been described seems to possess the following attributes. The paste is abundantly tempered with grit and/or sand and ranges from pottery almost indistinguishable from stone to pottery that is easily recognizable. All of it is crude, coarse, heavy, and thick.

With the exception of one or two lamp fragments, the pottery consists of bowls which are round, elliptical, or oval in horizontal section. Upon the basis of cross sections these bowls can be divided into three variants: (1) Flat-bottomed bowls with vertical, slightly convex rims; (2) bowls with round bottoms and vertical, slightly convex rims; and (3) bowls with round bottoms and outslanting, slightly convex rims.

The function of this pottery is not known, but the carbon deposits found on most of the vessels indicate that they were used for cooking purposes. It is, of course, possible that they were lamps, but this seems unlikely in view of the fact that the vessels are quite unlike the stone lamps found in the middens. And at least one pottery lamp found has the same shape as one of the types of stone lamps.

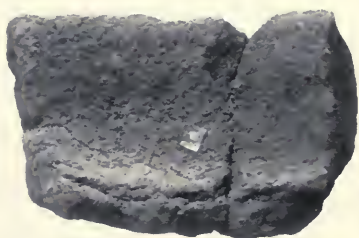
#### TYPOLOGICAL RELATIONSHIPS OF ALEUT POTTERY

Heretofore there has been no published evidence of pottery in the Aleutian Islands. From Atka Island, Jochelson (1925, p. 122)

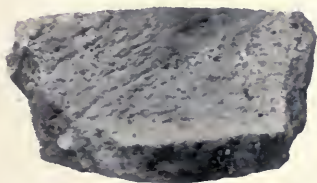




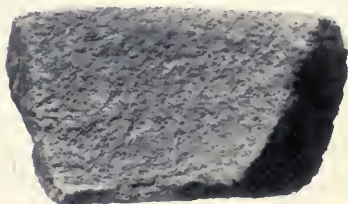
*a*



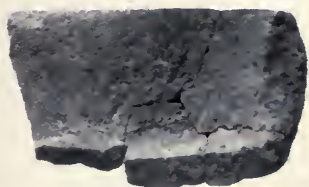
*b*



*c*



*d*



*e*



*f*

FIG. 4. Pottery and stone sherds from the Aleutian Islands.

reports the discovery of "one unbaked clay lamp" which disintegrated when he touched it. In a cave at Nazan Bay on Atka Island, Dall found a lamp carved of unbaked clay (Jochelson, loc. cit.; de Laguna, 1934, p. 177). Neither of these lamps is really pottery.

In his excavations of an Aleut midden at Port Möller in the Alaska Peninsula, Weyer (1930, p. 263) found a small fragment of "red, sandy clay, which may have been baked." Although the evidence is slight there may be pottery at Port Möller which may resemble some of the pottery from Amaknak Island.

In her excavations at Kachemak Bay (Cook Inlet, Alaska), de Laguna (1934, p. 68) found two small pieces of pottery "evidently from a large vessel, roughly smoothed inside and out. The clay has been mixed with coarse sand, and while the fragments are quite black, especially on the inside, they do not appear to have been fired intentionally." As well as one can judge from descriptions and pictures, the Kachemak Bay pottery is similar to some of the pottery from Amaknak Island.

The Aleut pottery is somewhat similar to the "unbaked pottery" found by Hrdlicka at Our Point site on Uyak Bay, Kodiak Island (Hrdlicka, 1944, p. 440, figs. 211, 212). This "unbaked pottery" from the Pre-Koniag and intermediate levels seems to have the same basic shape as the baked pottery of the Aleut.

Fired pottery was found on southwestern Kodiak Island in the Alitak Bay region. Of this pottery Hrdlicka says (op. cit., pp. 439, 440): ". . . we came across fairly numerous fragments of baked pottery. All the pieces were from coarse, thick, large jars, such as occur nowhere else in Alaska. A few of the fragments showed simple impressed border decorations." Hrdlicka seems to believe that this pottery belongs to his Koniag level (op. cit., pp. 34, 109, 111). These sherds were not sufficiently described for comparative purposes, but the jar shape suggests a relationship with a pottery jar from southeastern Kodiak Island which has been described by de Laguna (1939, pp. 334-336; 1940, p. 72). In shape, at least, the Kodiak jar is not similar to any of the pottery from the Aleutian Islands. And as de Laguna demonstrates in two excellent papers (1939, 1940), the Kodiak pottery is essentially similar to the Eskimo and Indian pottery found in the area between Norton Sound and Bristol Bay, including the Yukon and Kuskokwim rivers. All of this pottery belongs to her "Southern group," which she believes to have been derived in part from Asia via the Kuriles, Kamchatka, and Aleutian chain about 1000 A.D. (1940, pp. 71, 72).

## AGE OF ALEUT POTTERY

The age of Aleut pottery is difficult to determine. Known depths for the occurrence of pottery in the C Midden range from six to twelve feet, but the rate at which Aleut middens accumulated is not known, and consequently the position of pottery within a midden is not a good criterion for the determination of absolute age.

If Aleut pottery should be closely related to the pottery found by de Laguna at Kachemak Bay in Cook Inlet, it would be feasible to use her excellent stratigraphy as a yardstick for the chronological measure of Aleut pottery. Cook Inlet pottery is late. It appears in Yukon Island IV which belongs to the third (and last) period of Kachemak Bay culture (de Laguna, 1934). There are, however, so few sherds from Kachemak Bay that it is impossible to assess the degree of their relationship with Aleut pottery.

The Aleut pottery certainly does not seem to be related to any of the pottery styles of the ancient northern Eskimos, although it might be typologically related to those of modern northern Eskimos. Should such a relationship exist, the Aleut pottery would be comparatively recent.

The pottery found by Hrdlicka on Kodiak Island is assigned by him to his Koniag culture level, estimated to be from 300 to 400 years old (1944, p. 326). The Aleut pottery, however, does not seem to be closely related to this Koniag pottery; thus, Hrdlicka's guessed date is of only general use in determining the age of the Aleut pottery.

The resemblance of form between Aleut pottery and the "unbaked pottery" found by Hrdlicka at Our Point on Kodiak Island seems somewhat more suggestive of a parallel development than of a direct connection. This "unbaked pottery" was found in the late Pre-Koniag and Intermediate levels or periods and therefore does not seem to be particularly early. In fact Hrdlicka's late Pre-Koniag, Intermediate, and Koniag periods seem to equate with the Late Aleut period in the Aleutians.

By and large, the Aleut pottery does not seem to possess strong typological relationships with any pottery found elsewhere in Alaska. Other investigators, however, may see typological relationships where I see none. If Aleut pottery should turn out to be closely related to any of the other pottery styles I have mentioned, there would be a plausible argument for contemporaneity, and since all of this non-Aleut pottery is relatively recent, Aleut pottery also would be relatively recent.



There is a strong probability that Aleut pottery is an indigenous development. In the first place the pottery from the C Midden most closely resembles stone vessels from the same midden. Much of the Aleut pottery not only resembles stone but conveys the impression that the Aleut potters regarded themselves as working in "plastic" stone. By analogy with a stratified site (a site excavated in such a manner that stratigraphic analysis is possible), the D Midden, we know that the techniques of stone manufacture are much earlier than those of pottery.

A preliminary analysis of the materials from Midden D shows that it is possible to formulate an Early and a Late period of Aleut culture. Although both have much in common there are significant differences between them; for instance, the art of the Late period is suggestive of Punuk and Post Punuk design in northern Alaska whereas the art of the Early period is suggestive of Dorset design in the eastern Arctic (Quimby, 1945a). Toggle harpoon heads of the Early period have beds instead of slots for the attachment of stone blades. No pottery occurs in the Early period, but at least one large sherd comes from a Late period provenience. None of the stone vessels occur in the Early period, although stone-working techniques were known then and used specifically for the production of certain styles of stone lamps. Thus all the evidence from the stratified D Midden suggests that the stone and pottery vessels belong to the Late period, and by analogy with the D Midden the stone and pottery vessels from Midden C also belong to that period.

There is no available stratigraphy within the Late period which would show the development of the pottery vessel from the stone vessel, but typological considerations and the antiquity of stone-working techniques lead us to assume that the stone vessels appeared early in the Late period and that the pottery vessels were a development from the stone vessels. In view of Hrdlicka's "unbaked" pottery from Kodiak Island, it appears that a similar "evolution" was in progress among the Pre-Koniags at about the same time.

The time of this development is very uncertain. By analogy with the stratigraphy of Midden D all of the cultural content of Midden C seems to belong to the Late period. One of the traits of the Late period is the "sadiron-shaped" lamp of stone. Elsewhere (Quimby, 1945b) I have described this style of lamp and have suggested that it was coeval with or earlier than the "sadiron" lamps of Kamchatka. The sadiron lamps of Kamchatka have been dated as eleventh century (A.D.) by means of Japanese coins associated with them. If my hypothesis is correct, then the Late period of

Aleut culture dates from the eleventh century or earlier to 1741, the time of the first Russian contact with the Aleut. And thus Aleut pottery, apparently produced only in the Late period, belongs to a time interval somewhere between A.D. 1000 or earlier and 1741.

To summarize briefly: The prehistoric Aleut made pottery of a unique style that does not seem to be closely related to other known pottery types in Alaska. Probably the pottery of the Aleut was an outgrowth of their stone vessel industry. The development of Aleut pottery does not seem to be much older than the beginning of the second millennium and might be later. The pottery discussed in this report should be described more completely and should be analyzed by a petrographer or a similar specialist. The historical evidence which has been presented is circumstantial and should be regarded as a hypothetical framework in need of considerable testing.

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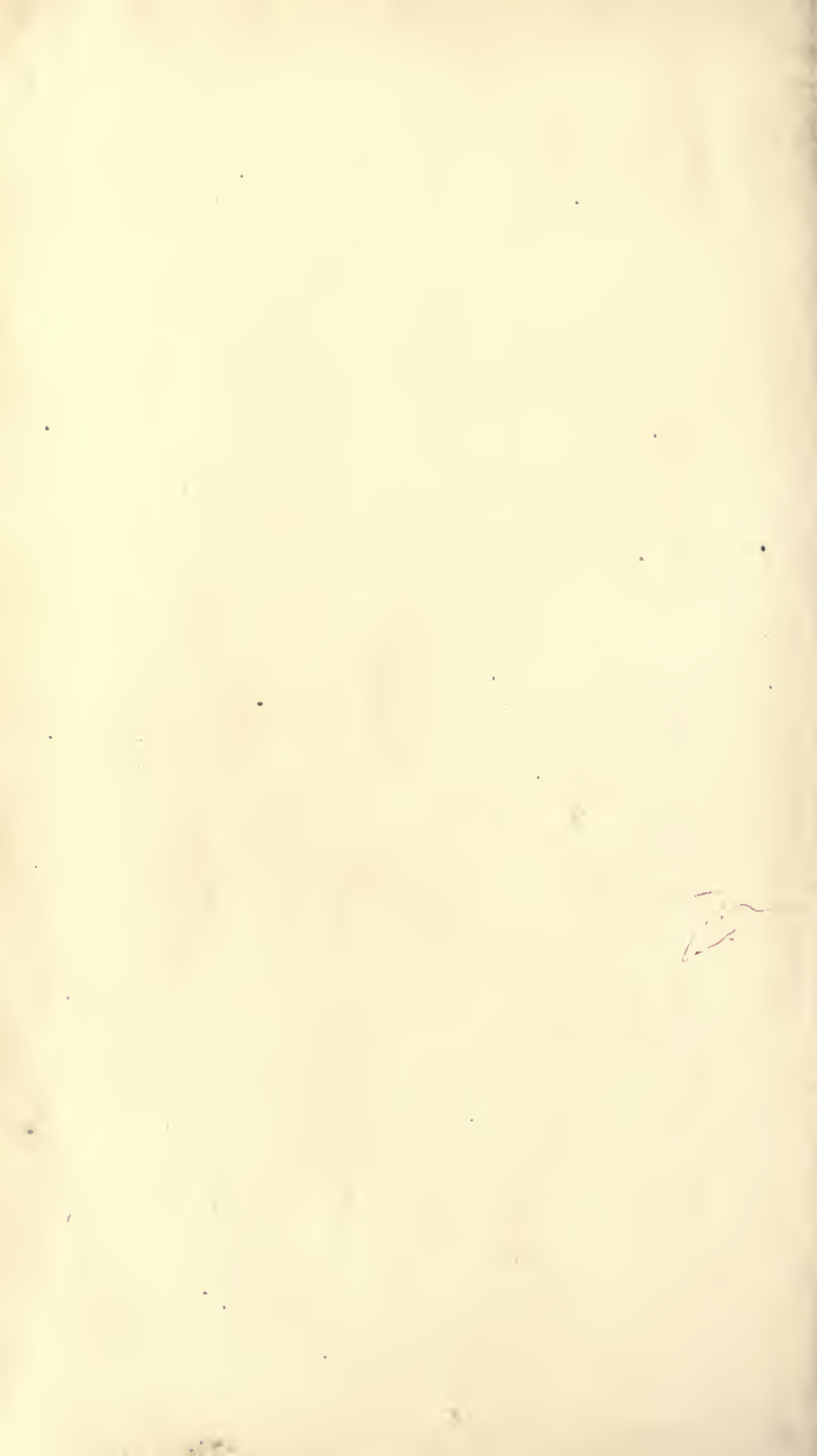
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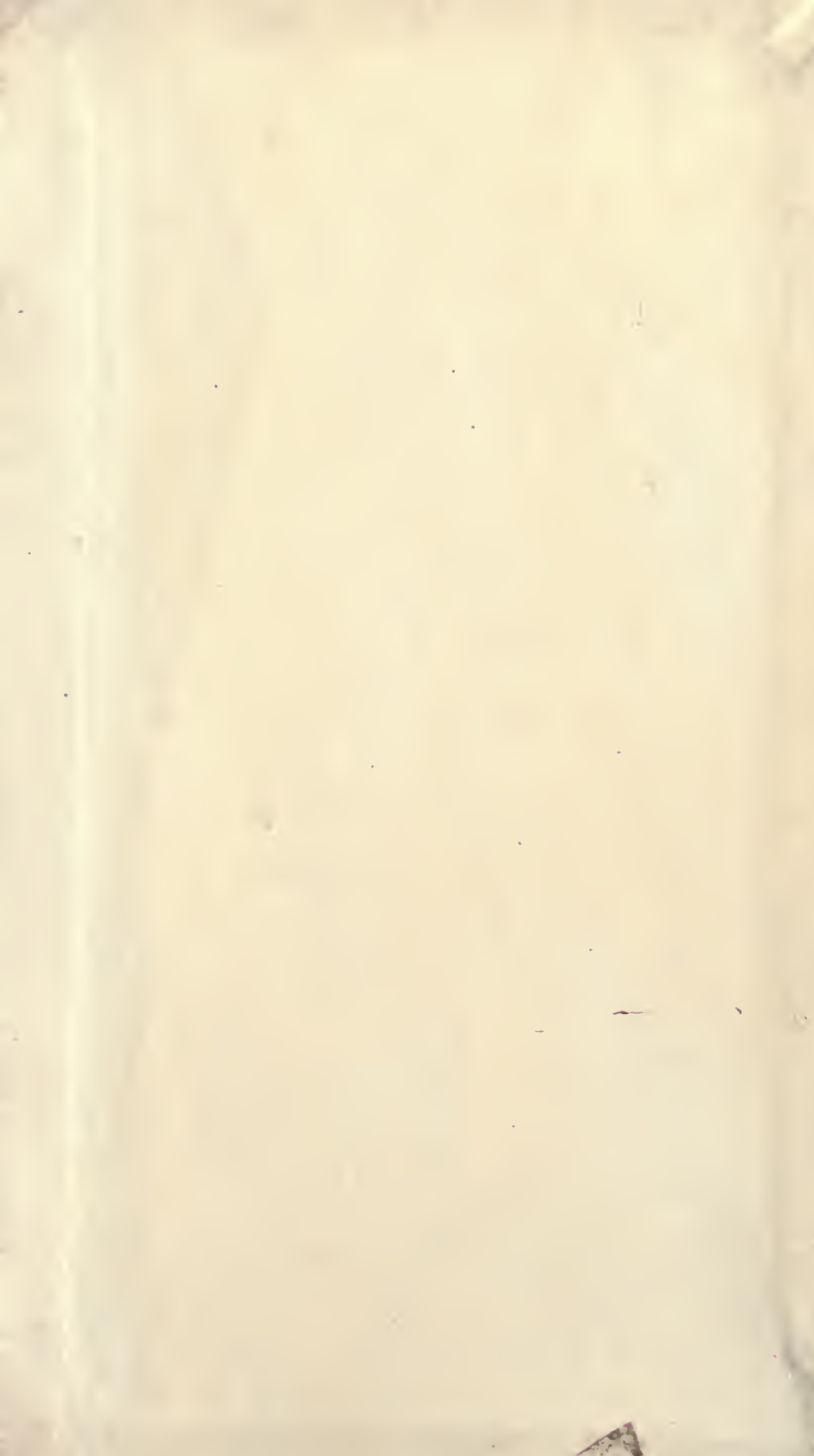
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